

DG 5511 PORTABLE THERMAL WRITING RECORDER

New
from
CEC



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DATA RECORDERS DIVISION

CONSOLIDATED ELECTRODYNAMICS

A SUBSIDIARY OF
BELL & HOWELL

DG 5511 PORTABLE TWO CHANNEL THERMAL

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A basic recorder for a wide range of a-c and d-c signals

Laboratory: Research & Development

Production: Monitoring & Inspection Testing

Field: Service & Maintenance

FEATURES

PORTABLE, COMPACT, RUGGED, & LIGHT WEIGHT—

Just plug it in and start recording.

VERSATILE—Incorporates a "3 in 1" modular concept whereby two plug-in signal conditioners accept a wide range of voltage inputs—and no pre-amp is needed for telemetry or other high level signals.

SNAP IN CHART LOADING—Loads from the front in one motion, with threading required.

THERMAL WRITING—True rectilinear trace presentation.

EXCELLENT FREQUENCY RESPONSE—d-c to 70 cps ± 1.5 db at full amplitude (50 mm); d-c to 125 cps ± 2.0 db at 10 mm amplitude.

PUSHBUTTON SELECTABLE CHART SPEEDS—Provides automatic trace density adjustment at all speeds.

ALL SOLID STATE

ACCESSORIES

EDGE TIMER/MARKER KIT—Provides one second pulse and mark on right. Interchannel and edge marker kits are externally actuated.

REAR INPUT KIT FOR PREAMPLIFIERS—Parallel the front panel inputs of signal conditioners.

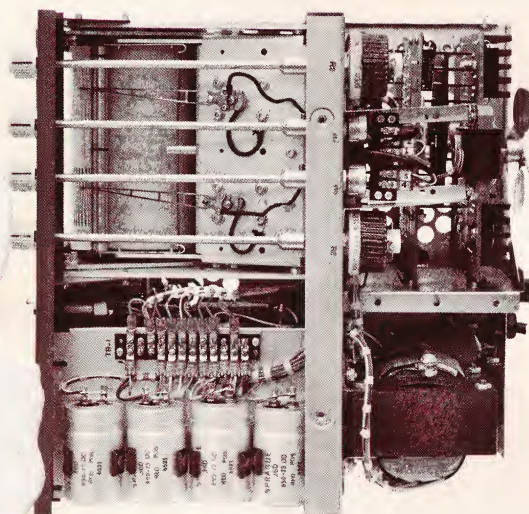
MATING CONNECTORS—All necessary mating connectors furnished.

REAR INPUT KIT TO DRIVER AMPLIFIERS—Available for use when plug-in modules are not required. Blank panels, connector and wiring included.

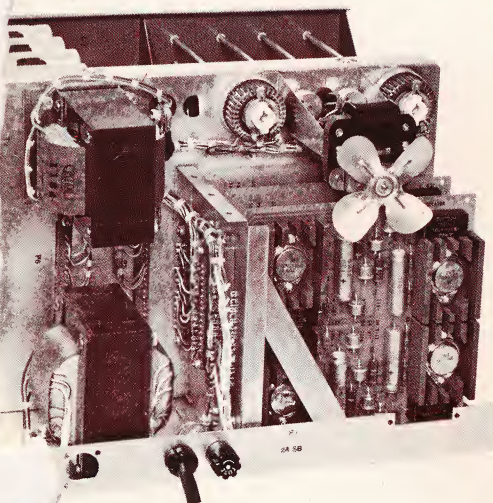
RACK MOUNTING KIT—Adapts unit to fit in standard 19" rack.

STYLUS PRESSURE GAGE—Insures proper pressure of stylus on the chart.

WRITING RECORDER



Top view with cover removed.



Rear view with cover removed.

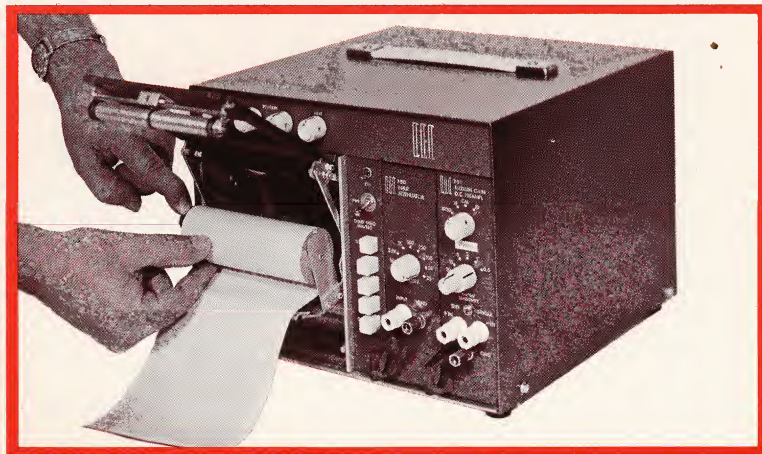
DESCRIPTION

Consolidated's DG 5511 Portable Two-Channel Thermal Writing Recorder records two channels of analog information at frequencies to 125 cps and on 50-mm-wide channels. The instrument utilizes a heated stylus to produce clear, sharp contrast, rectilinear traces on heat-sensitive DataTrace™ recording papers. A direct writing feature permits viewing of data as it occurs on high contrast or reproducible paper.

Modular construction of the DG 5511 makes the instrument more economical and versatile than any other comparable unit available today. High level signal inputs can be converted to relatively low level inputs by a simple change of plug-in attenuator/amplifier units—the "three in one" modular concept.

When using the properly selected plug-in unit, signals from 25 mv to 500 volts produce full scale (50 mm) deflection of the recorder's stylus. A four-speed, pushbutton-selectable chart drive permits paper economy at low frequency data recording; the same feature makes possible excellent resolution of high frequency data. Trace density of the DG 5511 is automatically adjusted with each fingertip speed change; thus, trace width remains constant at any speed.

The DG 5511 includes stylus motors, driver amplifiers, paper magazine, transmission, stylus and associated electronic circuitry—with two selectable plug-in modules. These components and the unit's attractive, functional, portable housing weigh a total of only 36 pounds.



Loading is accomplished in one simple motion.

PERFORMANCE DATA

These specifications apply only when CEC DataTrace® paper and writing styli are used.

ELECTRICAL SPECIFICATIONS

	Using Type 1-510 Attenuator	Using Type 1-511 Med. Gain DC Preamplifier
Maximum Sensitivity:	25 mv/div	0.5 mv/div
Sensitivity Range:	25, 50, 100, 250, 500 mv 1K, 2.5K, 5K and 10K mv/div	.5, 1, 2, 5, 10 & 20 mv/div and X100. Vernier gain control adjust over a range of 2.5:1
Input Circuit:	10K to 1 meg. minimum	0.5 megohms minimum
Common Mode Rejection:	138 db at D.C.	60 db at D.C. to 400 cps
Max. Common Mode Voltage	±500 volts	±15 volts
Frequency Response:	D.C. to 70 cps within ±1½ db at 50 mm p-p D.C. to 125 cps within ±2 db at 10 mm p-p	Same
Transient Response (10 to 90%):	5 milliseconds	Same
Zero Stability — Time:	0.25 div/hr: 1.0 div/24 hrs.	0.25 div/hr: 1 div/24 hrs.
— Line:	0.1 div. 103 to 127 volts	0.1 div. 103 to 127 volts
Gain Stability — Acc.:	±2.5%	±2%
— Line:	Better than 1%. 103 to 127VAC	Better than 1%. 103 to 127VAC
Noise:	0.1 div. RMS	0.2 div. RMS
Internal Cal.		10 mv

SUPPLIES

Chart Paper — DataTrace® 11	P/N 465511-112	Opaque—200'
DataTrace® 31	P/N 465511-312	Translucent—200'
Stylii	P/N 249662	Analog
	P/N 250113	Event Marker

NOTE: All specifications based on standard CEC test procedures.

PHYSICAL

Number of Channels:	2 analog, 3 event
Channel Width:	50 mm, 50 divisions per channel
Paper Supply:	200 foot roll, 3" dia.
Writing System:	Rectilinear using heated stylus on thermal-sensitive paper
Record Speeds:	1, 5, 25 and 125 mm/sec.
Speed Accuracy:	±1% at 60 cps line frequency
Dimensions:	8¾" x 12" x 12¼"
Weight:	36 lbs.

ENVIRONMENTAL

Temperature	
Storage:	−27°C to +60°C
Operating:	0°C to +50°C
Humidity:	10 to 95% rh, no cond.
Altitude:	
Operating:	0 to 10,000
Non-Operating:	0 to 40,000

POWER

115 volts ±10% at 60 cps
200 watts maximum

CONSOLIDATED ELECTRODYNAMICS

DATA RECORDERS DIVISION • 360 SIERRA MADRE VILLA, PASADENA, CALIFORNIA 91109
A SUBSIDIARY OF BELL & HOWELL • FINER PRODUCTS THROUGH IMAGINATION

CEC

Albuquerque, N.M.
141 Wyoming N.E.
ALpine 5-8671

Anaheim, California
1360 So. Anaheim Blvd.
Suite 205
635-1600

Arlington, Virginia
2009 - 14th St. North
524-3151

Columbus, Ohio
1350 West Fifth Ave.
488-9781

Dallas, Texas
433 Regal Row
MEIrose 1-3700

Denver, Colorado
2120 South Birch Street
SKyline 6-9453

Des Plaines, Ill.
3150 Des Plaines Ave.
299-7751

Hampton, Va.
1120 W. Mercury Blvd.
838-2455

Hasbrouck Heights, N.J.
345 Boulevard
ATlas 8-2055

Houston, Texas
Suite 4, 5405 Griggs Rd.
OLive 4-5767

Huntsville, Alabama
3322 S. Memorial Pkwy.
881-2231

Los Altos, California
900 N. San Antonio Rd.
948-8294

Needham Heights, Mass.
45 Fourth Ave.
444-8010

New Orleans, La.
1025 S. Jefferson Davis
Pkwy.
482-3152

Philadelphia, Pa.
2010 Oregon Ave.
HOWard 5-3773

Pomona, California
675 No. Park Ave.
NAtional 3-1487

Salt Lake City, Utah
48 East Robert Ave.
486-9297

Seattle, Washington
302 Second Ave., West
ATwater 4-5370

St. Louis, Missouri
1401 Brentwood Blvd.
WOODland 2-3542

Syracuse, New York
Pickard Bldg., Room 104
E. Molloy Road
454-9292

Van Nuys, California
Suite 314
5430 Van Nuys Blvd.
872-2960

Winter Park, Florida
501 Park Avenue N.
Midway 7-0101

CEC/GmbH
Frankfurter
P.O. Box 3
636 Friedbe
West German

**Consolidated
Electrodynamics Division**
14 Commercial Rd.
Woking, Surrey, England
Woking 5633